

PATENT APPLICATION  
Docket No: 14321.74

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Tadayuki Imai et al.

Serial No.: 10/534,635 )Art Unit 2874

Filing Date: May 5, 2005 )

Confirmation No.: 8645 )

For: OPTICAL WAVEGUIDE MATERIAL AND  
OPTICAL WAVEGUIDE

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(I), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed listed references are disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof that is not a US patent document is also enclosed.

Statement of Relevance of References Listed  
Unaccompanied by English Translation  
Under 37 CFR § 1.98(a)(3)

In accordance with 37 CFR § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided.

Japanese Application number 2002-303903: PROBLEM TO BE SOLVED: To provide a multi-wavelength light source which can actualize control over the number of wavelengths and the band of the wavelengths by selecting an electrode applied with an electric field. SOLUTION: This light source has electrodes with fixed-cycle widths on the plane of a waveguide and a device is temperature-controlled by a Peltier element so as to stabilize efficiency and signal wavelengths. The pitch of the electrodes corresponds to a grating pitch actualizing artificial phase matching needed for the difference frequency generation of light in a 1.55  $\mu\text{m}$  band while pump light beams are of 0.770, 0.775, 0.780, and 0.785  $\mu\text{m}$ . In this case, the electrode pitch is 12 to 13  $\mu\text{m}$ . The electrodes are applied with a voltage corresponding to 1 kV/cm and a polarization maintaining fiber is used to make signal light of 1.53  $\mu\text{m}$  and the pump light beams of 0.770, 0.775, 0.780, and 0.785  $\mu\text{m}$  incident from an incidence end at the same time.

Dated this 21st day of September 2006.

Respectfully submitted

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